

# GATE ELECTRODES AND THE FORMATION THEREOF

## Abstract

A method of fabricating a gate electrode for a semiconductor comprising the steps of: providing a substrate; providing on the substrate a layer of a first material of thickness  $t_p$ , the first material being selected from the group consisting of Si,  $Si_{1-x} - Ge_x$  alloy, Ge and mixtures thereof and a layer of metal of thickness  $t_m$ ; and annealing the layers, such that substantially all of the first material and the metal are consumed during reaction with one another.